

Unnatural Death Among Covid-19 Tested Positive Individuals: A Retrospective Study

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ABSTRACT

Introduction:- Covid 19 started out as a fast-spreading viral disease, in Wuhan in 2019. Soon, it spread across the globe and WHO declared it a Pandemic. Various countries took various measures to control its spread and transmission. By the time, countries recovered from it, a new wave would come along with different expressions and pathophysiology.

When Covid 19 began, various health agencies in India started making protocols and standard operating procedures including conducting autopsies in COVID-19 infected bodies.

Aims and Objectives:- Aim of our study is to analyze cause of death among all covid 19 positive cases brought for medicolegal autopsies from the time of lockdown for a period of one year. Our aim is to see if there were any factors which could have prevented these deaths.

Materials and methods: A retrospective study of 1 year conducted from 25th March 2020 to 24th March 2021, (1st wave of Covid 19) was done in a tertiary care hospital in Bangalore. (Bowring and Lady Curzon hospital)

Results: 39 Covid-19-positive unnatural deaths were handled with the youngest being 18 years old and the oldest beings 83. The majority turned out to be suicides (51.28%), then RTAs, falls, and natural death. The commonest method of suicide was hanging (35.89%), followed by poison consumption, and falling from a height.

Conclusion: COVID -19 is a viral infection with variable clinical signs and variable fatality rates. There is much to learn about it. However, suicides in COVID -19 cases might not have ended death if some care, timely diagnosis, and treatment were provided.

Keywords: Covid 19, unnatural deaths, suicide.

INTRODUCTION

In the last passing days of 2019, Wuhan started facing a new problem. A viral infection, similar to influenza, but more widespread and

deadly, not responding to routine treatment. Before it could be curtailed and isolated, it had spread to various countries and the death toll increased. WHO named the new disease COVID-19 and later declared it as a Pandemic

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when it became evident that it had spread too far too many countries.

Covid 19 is caused by novel Coronavirus, SARS-CoV-2, severe acute respiratory syndrome - Coronavirus 2. It is a negatively stranded RNA virus with a capacity for rapid mutation and recombination.¹

1st reported case of Covid 19 in India was on 30th Jan 2020, 1st death due to the disease on 4th February 2020. In view of the spreading disease, on 24 March 2020, the Government of India ordered a nationwide lockdown for 21 days, extended later on, limiting the movement of the entire 1.3 billion population of India as a preventive measure against the COVID-19 pandemic in India.² In order to reduce transmission of Covid-19 infection, many hard steps were taken by the Government of India including nationwide closing of businesses, travel restrictions, and controlled movement of individuals. The main concern was to prevent the transmission of the virus and aftereffects of infection i.e. to decrease the mortality rate. The lockdown was justified by the government and other agencies for being defensive to prevent covid19 spread and by some time for preparation of medical tools for the battle against the said pandemic. The lockdown and restrictions were extended again and again before they were partially uplifted to allow the movement of people in limited numbers. The restrictions on isolation and quarantine were also reduced slowly.

Aim of our study is to analyze the cause of death among all covid 19 positive cases brought for medicolegal autopsies from the time of lockdown for a period of one year. Our aim is to see if there were any factors that could have prevented these deaths.

MATERIALS AND METHODS

A retrospective study of 1 year was conducted from 25th March 2020 to 24th March 2021, which coincided with the first wave of Covid 19 and was done in a tertiary care hospital in Bangalore - Bowring and Lady Curzon hospital. All the medicolegal autopsies

conducted during the time period on Covid 19 positive cases were included. Clinical autopsies, Covid 19 positive cases autopsied before or after the duration were excluded. The details were collected from the postmortem reports, police requisition forms, hospital records, etc. The results were tabulated based on age, sex, cause of death

RESULTS

A total of 39 Covid 19 positive tested bodies were brought for medicolegal autopsies in the study duration. Out of which, five cases were of unknown persons (12.82%) and all five were males. Out of 39 cases, only 5 were female (12.82%).

Age wise, youngest was 18-year-old and oldest, 83-year-old. The mean age was 45.33 years. More deaths were noted in 30-39 years and 40-49 years range, 8 in each group (20.51% each). Followed by 50-59 years, 7 in number, 17.94%. The least deaths occurred in 80-89-year range (1 death).

Majority of cases were due to hanging (35.89%), followed by road traffic accidents (23.07%), natural death (17.94%), poisoning and fall from height (7.69% each). 2 cases were due to gunshot wounds and in 1 case, death was undetermined.

Suicidal deaths contributed to 51.28%. Females showed no preference among hanging or poisoning. Accidental deaths occurred in 23.07% cases. No correlation was found in road traffic accidents. Out of 7 natural death cases, 5 belonged to unknown. In the remaining two, one suffered from hypertensive cardiovascular bleed and other was suffering from tuberculosis

DISCUSSION

Covid 19 is not just a viral disease, not just a Pandemic. It is a lesson for us to learn from. The importance of isolation, quarantine, lockdowns in regard to transmission of the disease can be seen in this case. This also showed us the gaps in our health service sector and the need for protocols for any emergency.

Table 1. Age and Sex distribution in covid 19 positive autopsied cases

Age group	Male	Female	Total	Percentage %
0-9	0	0	0	0
10-19	2	0	2	05.12
20-29	6	0	6	15.38
30-39	7	1	8	20.51
40-49	7	1	8	20.51
50-59	6	1	7	17.94
60-69	4	1	5	12.82
70-79	1	1	2	05.12
80-89	1	0	1	2.56
90-99	0	0	0	0
Total	34	5	39	100

Table 2. Sex wise manner of death distribution

Manner	Male	Female	Total	Percentage %
Suicidal	17	3	20	51.28
Homicidal	2	0	2	05.12
Accidental	9	0	9	23.07
Natural	5	2	7	17.94
Undetermined	1	0	1	02.56
TOTAL	34	5	39	

Table 3. Sex wise cause of death distribution

COD	Male	%	Female	%	Total	%
Hanging	13	33.33	1	05.12	14	35.89
Poison	2	05.12	1	02.56	3	07.69
Fall from height	2	05.12	1	02.56	3	07.69
RTAs	9	23.07	0	-	9	23.07
Gunshot injuries	2	05.12	0	-	2	05.12
Natural	5	12.82	2	05.12	7	17.94
Undetermined	1	02.56	0	-	1	02.56

Covid 19 occurred in waves, each time with different mutation and different pathophysiology and the treatment protocol was different each time. The medication that worked last time may not work this time. The clinical signs and symptoms also varied. From a case of cough and cold needing home quarantine and isolation to prevent spread of disease to sudden respiratory distress needing ventilatory support, from minor body aches to disseminated coagulopathy to multi organ dysfunction, the range varied.

The lockdowns, isolation, travel restrictions also brought lots of complications including losing job, loss of pay, unemployment, financial breakdowns and more.

As per reports by National Crime Records Bureau (NCRB), India lost 1.53 lakh people to suicide as compared to coronavirus which killed close to 1.49 lakh people in 2020.³

Anecdotally, mental disorders have been linked to infection with common respiratory viruses. However, some publications now

expressed concern regarding clusters of COVID -19 breakouts among those with mental illness. Social isolation, financial woes, fake and misinformation about the disease - all such factors influence the suicidal behavior and become trigger points in a person suffering from effects on mental health due to Covid 19 infection.

There has been studies showing increased suicide trends during Covid 19 period.⁴⁵ However, there are no studies done on unnatural deaths among Covid 19 positive cases.

According to McDowell et al, the COVID-19 outbreak in Boston was associated with significant differential increases in ED presentations with suicidal ideation and SUD.⁶ This is similar to our study which shows more than half of the cases had committed suicide.

According to studies by Sripada et al, majority of suicide victims were male (75.3%), 53.8% cases of suicides were by hanging.⁷ This is like what we found in our study.

CONCLUSION

This study highlights the need for special care to be taken for the mental health in cases of Pandemic, especially of Covid 19 positive cases. These deaths could have been prevented if proper diagnosis and treatment. More studies are needed to learn about the correlation in detail.

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